Amendments to the Claims

Please amend the claims as follows.

1. (Currently Amended) A tube holder for use with a peristaltic pump, the tube holder comprising:

a housing having a recess for receipt of a pump rotor, a tube race for receipt of a tube around the recess and having a first race part around one part of the recess and a second race part around another part of the recess, a first tube inlet into the first race part and a first tube outlet from the first race part, a second tube inlet into the second race part and a second tube outlet from the second race part, the first race part extending between the first tube inlet and first tube outlet and comprising an occluding surface against which part of a tube can be compressed in use by a pump rotor, and the second race part extending between the second tube inlet and second tube outlet and comprising an occluding surface against which part of a tube can be compressed in use by the pump rotor;

the tube being insertable in the tube race by movement in a substantially orthogonal direction relative to the tube race so that it extends in through the first tube inlet, around the first race part, out through the first tube outlet, in through the second tube inlet, around the second race part, and out through the second tube outlet, and such that a portion of the tube between the first tube outlet and second tube inlet is external of the tube race.

2. (Original) A tube holder as claimed in claim 1, wherein the first tube outlet and second tube inlet are configured such that the tube can exit the housing between the first outlet and second inlet.

3. (Original) A tube holder as claimed in claim 1, wherein the first tube outlet and second tube inlet are in communication with a recess or groove which is separate to the tube race, but which is located within the housing.

4. (Previously Presented) A tube holder as claimed in claim 1, wherein the housing comprises a lip or projection between the first outlet and the second inlet, behind which the tube can be located to maintain the tube in position within the tube race.

5. (Previously Presented) A tube holder as claimed in claim 1, wherein the recess is tapered for receipt of a tapered pump rotor.

6. (Original) A tube holder as claimed in claim 5, wherein each tube race part is defined by a channel or groove extending inwardly from a respective tube inlet and tube outlet.

7. (Original) A tube holder as claimed in claim 6, wherein the grooves extend part way around the recess.

8. (Canceled).

9. (Previously Presented) A tube holder as claimed in claim 1, wherein the tube holder is a one-piece article.

10. (Previously Presented) The combination of a tube holder as claimed in claim 1 and a pump head having a tapered rotor which is received in the recess of the tube holder, such that actuation of the pump head causes fluid to be pumped through a tube in the tube holder by occlusion of the tube.

11. (Original) The combination as claimed in claim 10, wherein the tube is resiliently flexible so that it returns substantially to its original shape following occlusion, to thereby suck fluid through the tube.

12. (Previously Presented) The combination as claimed in claim 10, wherein the rotor is axially biased towards its tapered end, such that the pump rotor and tube race are self-adjusting, to maintain a desired pressure on a tube in the tube race during pumping.

13. (Original) The combination as claimed in claim 12, wherein the rotor is axially biased by a compression spring.

14. (Previously Presented) The combination as claimed in claim 12, including a stop to limit the axial movement of the rotor relative to the housing.

15. (Original) The combination as claimed in claim 14, wherein the stop is in the form of an annular lip on the rotor.

16. (Previously Presented) The combination as claimed in claim 13, wherein the pump head comprises a transmission mechanism to transmit motive power from a power source to the rotor, and wherein the base of the tapered rotor comprises a plurality of gear teeth which engage with a gear of the transmission mechanism, and wherein the gear teeth of the rotor and the teeth of the gear of the transmission mechanism are of sufficient length to remain engaged during axial movement of the rotor.

17. (Currently Amended) The combination as claimed in claim 16, wherein the gear teeth of the rotor are elongate and longer than the teeth of the gear of the transmission mechanism.

18. (Previously Presented) The combination as claimed claim 10, wherein part of the rotor is substantially conical or frustoconical, and has a plurality of rollers rotatably mounted thereon which are configured to occlude the tube in use.

19. (Original) The combination as claimed in claim 18, wherein the rollers are substantially frustoconical in configuration, with their tapered ends directed towards the tapered end of the rotor.

20. (Original) The combination as claimed in claim 19, wherein the rollers are mounted for rotation with axes which taper toward the tapered end of the rotor.

21. (Previously Presented) The combination as claimed in claim 18, wherein the rotor comprises a main body part and a head part, with the rollers mounted for rotation in a recess or recesses between the main body part and the head part.

22. (Previously Presented) The combination as claimed in claim 10, wherein the tube holder and pump head are fully separable from an operable configuration in which the rotor is located in the recess of the tube holder and configured to pump fluid through a tube to a loading configuration in which the tube may be loaded into the tube race.

23. (Currently Amended) A method of loading a tube into a tube holder comprising:
providing a tube holder having a housing having a recess for receipt of a pump rotor, a tube race for receipt of a tube around the recess and having a first race part around one part of the recess and a second race part around another part of the recess, a first tube inlet into the first race part and a first tube outlet from the first race part, a second tube inlet into the second race part and a second tube outlet from the second race part, the first race part extending between the first tube inlet and first tube outlet and comprising an occluding surface against which part of a tube can be compressed in use by a pump rotor, and the second race part extending between the second tube inlet and second tube outlet and comprising an occluding surface against which part of a tube can be compressed in use by the pump rotor;
providing a tube; and
moving the tube in a substantially orthogonal direction relative to the tube race such that it extends in through the first tube inlet, around the first race part, out through the first tube outlet, in through the second tube inlet, around the second race part, and out through the second tube outlet, and such that a portion of the tube between the first tube outlet and second tube inlet is external of the tube race.

24. (Canceled).

25. (Currently Amended) A method as claimed in claim ~~24~~ 23, wherein the tube holder comprises a retainer which is in the form of a projection or lip between the first

outlet and the second inlet, and wherein the method further comprises pulling the installed tube in a direction away from the projection or lip so that the tube is maintained in position within the tube race with part of the tube located behind the projection or lip.

26. (Previously Presented) A method as claimed in claim 23, wherein the method comprises bringing the tube holder into engagement with a pump head to provide the combination of a tube holder and a pump head, and so that the rotor is located in the recess in the tube holder.

27. (Currently Amended) A method as claimed in claim 26, wherein ~~the combination is as claimed in claim 10~~ the pump head comprises a tapered rotor which is received in the recess of the tube holder, such that actuation of the pump head causes fluid to be pumped through a tube in the tube holder by occlusion of the tube against the occluding surfaces of the tube race.

28. (Currently Amended) The combination of a peristaltic pump head having a tapered pump rotor which is rotatable about an axis of rotation, and a tube holder having a recess for receipt of the tapered end of the rotor, the tube holder having a tube race configured for receipt of a tube for pumping of a fluid by movement of the rotor, the tube race comprising ~~a plurality of separate race parts around the recess defined by a plurality of apertures or recesses~~ a first race part around one part of the recess and a second race part around another part of the recess, a first tube inlet into the first race part and a first tube outlet from the first race part, a second tube inlet into the second race part and a second tube outlet from the second race part, the first race part extending between the first tube inlet and first tube outlet and comprising an occluding surface against which part of a tube can be compressed in use by the tapered pump rotor, and the second race part extending between the second tube inlet and second tube outlet and comprising an occluding surface against which part of a tube can be compressed in use by the tapered pump rotor, wherein a tube can be inserted into the tube race so that it extends in through the first tube inlet, around the first race part, out through the first tube outlet, in through the second tube inlet, around the second race

part, and out through the second tube outlet, such that the tube ~~can exit~~ exits and ~~re-enter~~ re-enters the tube race, and such that a portion of the tube between the first tube outlet and second tube inlet is external of the tube race.

29. (Original) The combination as claimed in claim 28, wherein the tube is insertable into the tube race without separating the tube holder from the pump head.

30. (Original) The combination as claimed in claim 28, wherein the tube holder and pump head are movable from an operable configuration in which the rotor is located in the recess of the tube holder and configured to pump fluid through a tube to a loading configuration in which the tube may be loaded into the tube race.

31. (Original) The combination as claimed in claim 30, wherein the tube holder and pump head are fully separable.

32. (Currently Amended) The combination as claimed in claim 28, wherein the tube holder has a housing, ~~a~~ the first ~~tube~~ race part around one part of the recess defined by a first tube inlet aperture and a first tube outlet aperture, ~~and a~~ the second ~~tube~~ race part around another part of the recess defined by a second tube inlet aperture and a second tube outlet aperture, such that movement of a tube threaded therethrough in the axial direction of the rotor is minimized or prevented by the apertures.

33. (Currently Amended) The combination as claimed in claim 30, wherein the tube holder comprises:

a housing having a recess for receipt of a pump rotor, ~~a~~ the tube race for receipt of a tube around the recess and having ~~a~~ the first race part around one part of the recess and ~~a~~ the second race part around another part of the recess, ~~a~~ the first tube inlet into the first race part and ~~a~~ the first tube outlet from the first race part, ~~a~~ the second tube inlet into the second race part and ~~a~~ the second tube outlet from the second race part;

the tube being insertable in the tube race by movement in a substantially orthogonal direction relative to the tube race so that it extends in through the first tube inlet, around

the first race part, out through the first tube outlet, in through the second tube inlet, around the second race part, and out through the second tube outlet.

34. (Original) The combination as claimed in claim 33, wherein the tube is resiliently flexible so that it returns substantially to its original shape following occlusion, to thereby suck fluid through the tube.

35. (Previously Presented) The combination as claimed in claim 33, wherein the rotor is axially biased towards its tapered end, such that the pump rotor and tube race are self-adjusting, to maintain a desired pressure on a tube in the tube race during pumping.

36. (Original) The combination as claimed in claim 35, wherein the rotor is axially biased by a compression spring.

37. (Previously Presented) The combination as claimed in claim 35, comprising a stop to limit the axial movement of the rotor relative to the housing.

38. (Original) The combination as claimed in claim 37, wherein the stop is in the form of an annular lip on the rotor.

39. (Previously Presented) The combination as claimed in claim 36, wherein the pump head comprises a transmission mechanism to transmit motive power from a power source to the rotor, and wherein the base of the tapered rotor comprises a plurality of gear teeth which engage with a gear of the transmission mechanism, and wherein the gear teeth of the rotor and the teeth of the gear of the transmission mechanism are of sufficient length to remain engaged during axial movement of the rotor.

40. (Currently Amended) The combination as claimed in claim 39, wherein the gear teeth of the rotor are elongate and longer than the teeth of the gear <u>of the transmission mechanism</u>.

41. (Previously Presented) The combination as claimed in claim 28, wherein the tapered part of the rotor is substantially conical or frustoconical, and has a plurality of rollers rotatably mounted thereon which are configured to occlude the tube in use.

42. (Original) The combination as claimed in claim 41, wherein the rollers are substantially frustoconical in configuration, with their tapered ends directed towards the tapered end of the rotor.

43. (Original) The combination as claimed in claim 42, wherein the rollers are mounted for rotation with axes which taper toward the tapered end of the rotor.

44. (Previously Presented) The combination as claimed in claim 41, wherein the rotor comprises a main body part and a head part, with the rollers mounted for rotation in a recess or recesses between the main body part and the head part.

Claims 45-77 (Canceled)